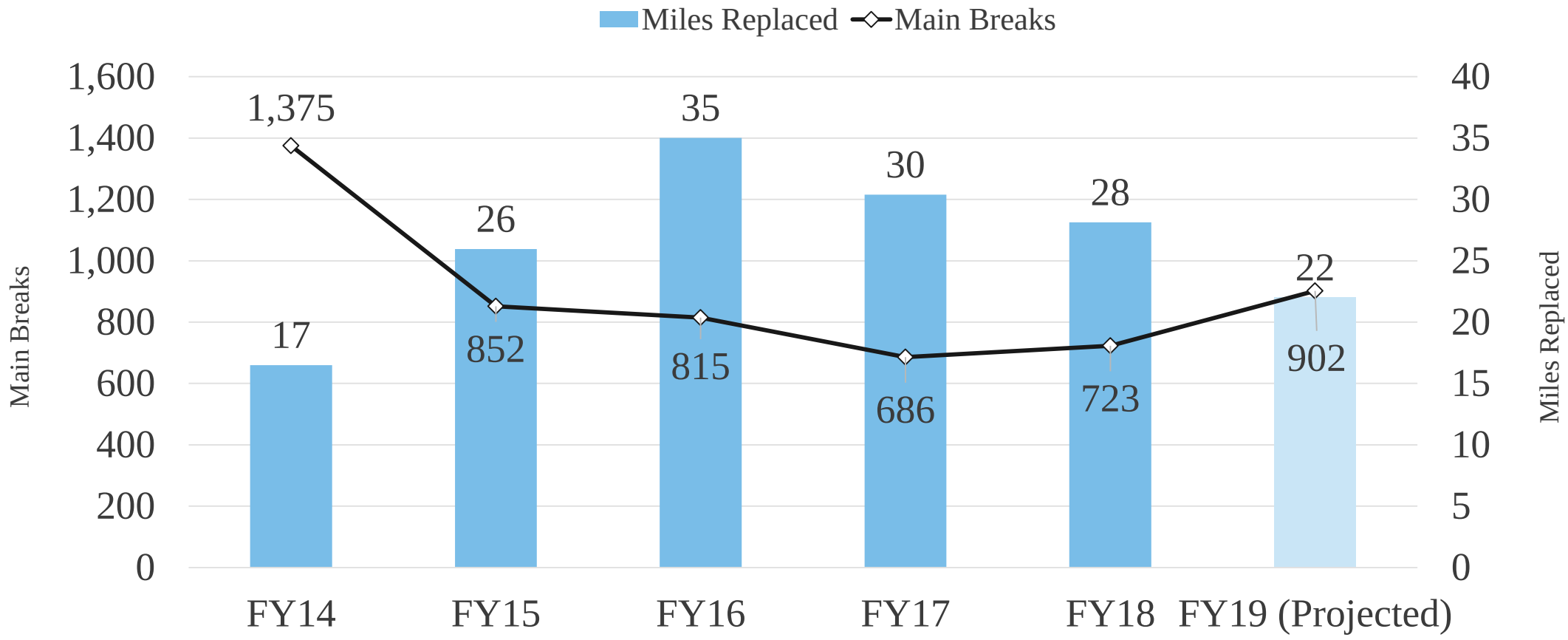
KC Water FY20 CIP

Matt Bond
Chief Engineering Officer

WATER PROJECTS

Water Main Replacement Program



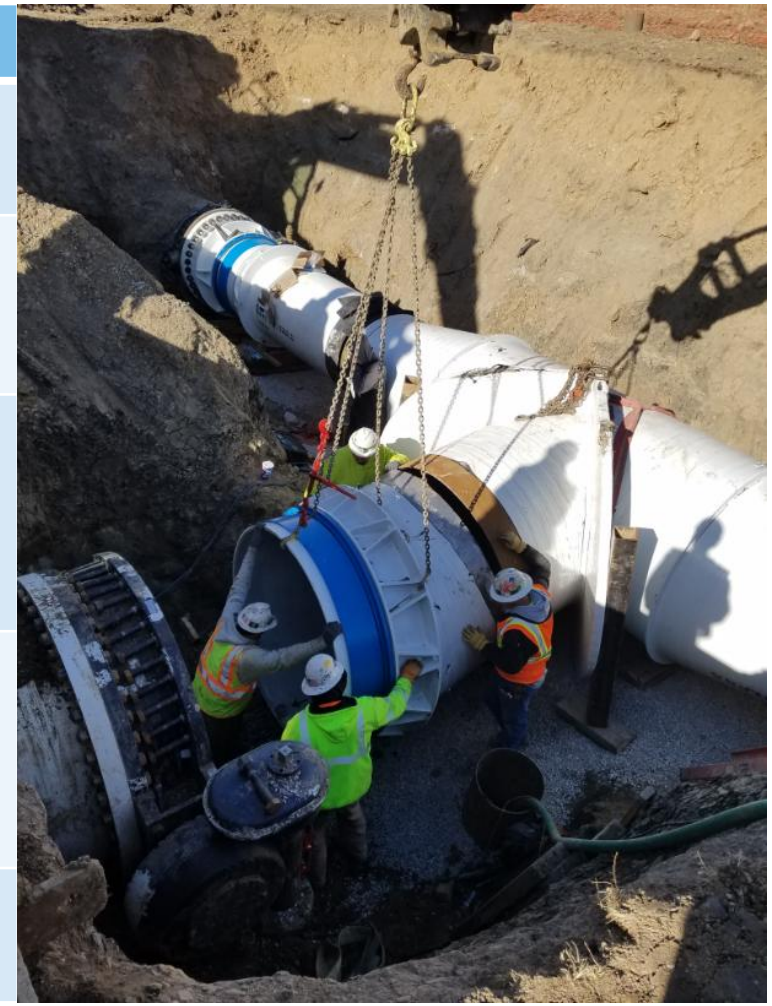
Water Main Replacement Design

Project	Project Manager	Value
SLBE-Water Main Replacements (5 Projects)	TBD	$1,500,000
Water Main Replacements (8 Projects)	TBD	$3,500,000
Water Main Replacement Design/Build	TBD	$4,000,000

- Slightly fewer, larger projects
- Using design/build
- RFQ/Ps expected in Summer 2019

Transmission and Water Main Construction

Transmission Main Projects	Project Manager	Value
75th Street Transmission Main - Phase 1 (Main Street to Summit Street)	Terry Thomas	$6,500,000
36”-Waukomis T. M. (Englewood to NW 62nd St) *Project is separate and ahead of road project*	Jerry Stevens	$2,250,000
36”- N. Green Hills Rd. Phase 1 (Platte Brooke Dr. to 78th) *Project in conjunction with Public Works Road Project*	Melanie Jollett	$2,250,000
36” & 12”- N. Brighton (58th St to Pleasant Valley Road) *Project in conjunction with Public Works Road Project*	Kelly Finn	$3,750,000
30” & 16”-Maplewoods Parkway (96th to 108th St)	Kelly Finn	2,000,000



12 Projected Water Main Replacement Projects--$23 M

Existing 18th St. Service Center Site

Primary Concerns at Site:

- Safety
- Antiquated work environment
- Substandard and crowded facilities
- Negative image of complex
- 21 Acres needed—>17 Acres Available

Modified Service Center Per Facility Plan

Design/Program Management Services RFQ/P Spring or Summer 2019

WASTEWATER PROJECTS

Wastewater SCADA Phase 1 Construction

Major Goals

- User-friendly visual interface
- Focused on O&M needs
- Easily expandable
- Programming standards
- Security

Integrate Real Time Data

- Status alarms
- Equipment failure
- Run status
- Instrument readouts

Phase 1 Project Establishes Strategy, Standards, Implements 5-6 sites

KCWATER

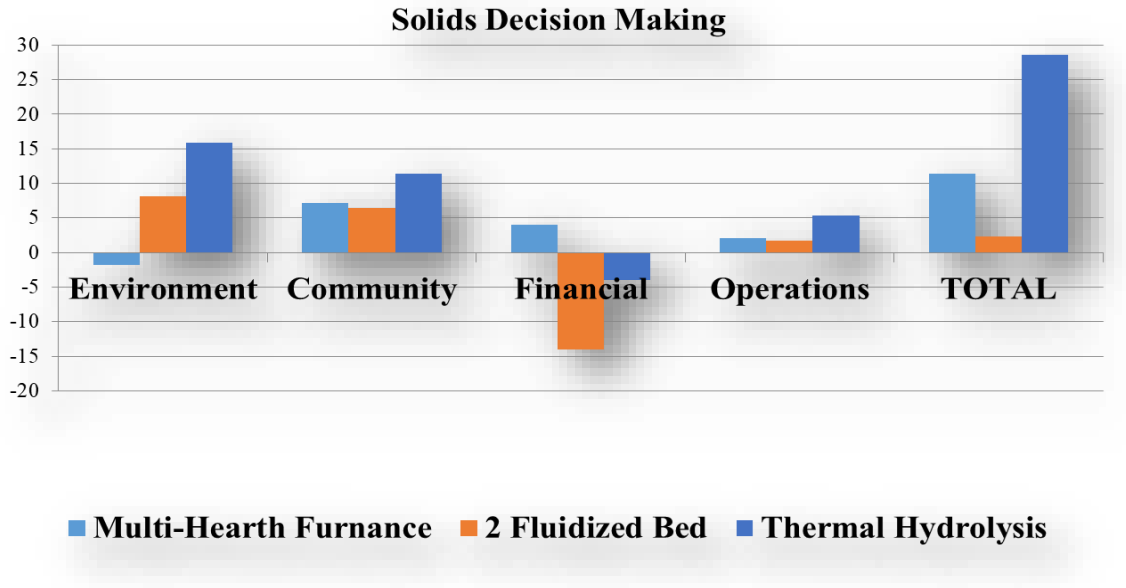
Blue River WWTP Biosolids Processing

Advanced Digestion (Thermal Hydrolysis)

- Eliminates incineration, emissions
- Maximizes use of existing digesters

Recovers resources:

- 100% Class A Biosolids-suitable for marketing
- Energy recovery
- Phosphorus recovery



Implemented by design/build (Summer RFQ/P)

Approved for Innovative financing

- State Revolving Fund (SRF) Loan
- EPA WIFIA program

Driving Innovations (i.e. BIM Model)

KCWATER

STORMWATER PROJECTS

FY2020 PIAC PROJECTS

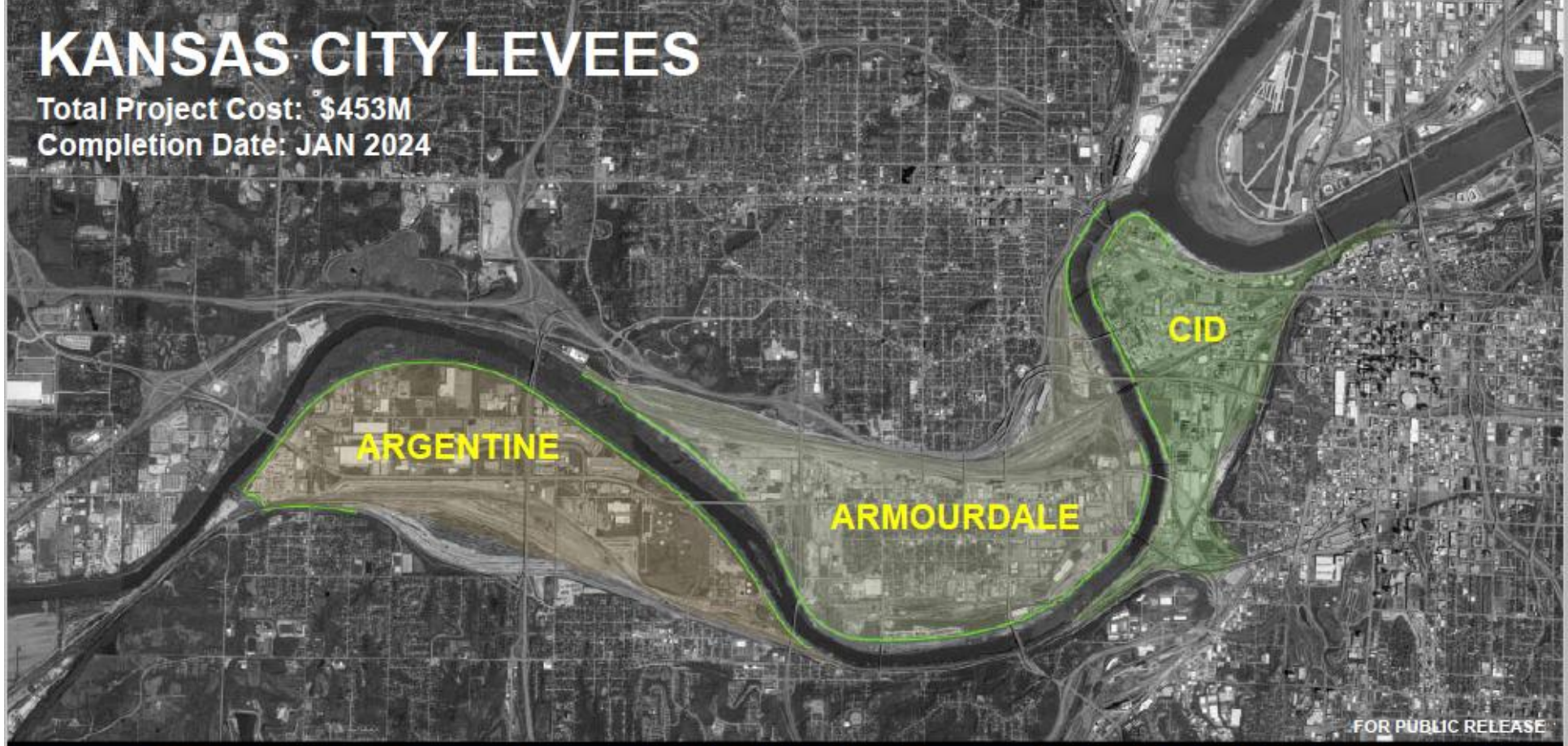
Phase	No. of Projects	Value
Construction	3	$1.6 M
Bid/Construction	14	$3.3 M
Design, Bid, & Construction	4	$0.7 M
Design/Bid	4	$1.3 M

SLBE On Call Services RFQ/P Expected Early 2020

With USACOE, UGWYCO, and Kaw Valley Drainage Dist.

Fully federally funded at ~$453M

Expect design/build



ARGENTINE LEVEE UNIT	
PROJECT FEATURES	IMPROVEMENTS
Constructed: 1951	Improved performance reliability
Total Miles: 5.48 mi.	Five feet of levee and floodwall raise
Embankment: 5.21 mi	Installation of ~50 relief wells
Floodwall: 0.27 mi	Stability improvement measures
Closure Structures: 2	Two closure structure replacements
Population at Risk: 10,700	Replace two pump stations
Structures at Risk: 723	Repair one pump station
Property Value: $3.05B	Utility Relocations
Leveed Area: 3.09 sq. mi.	

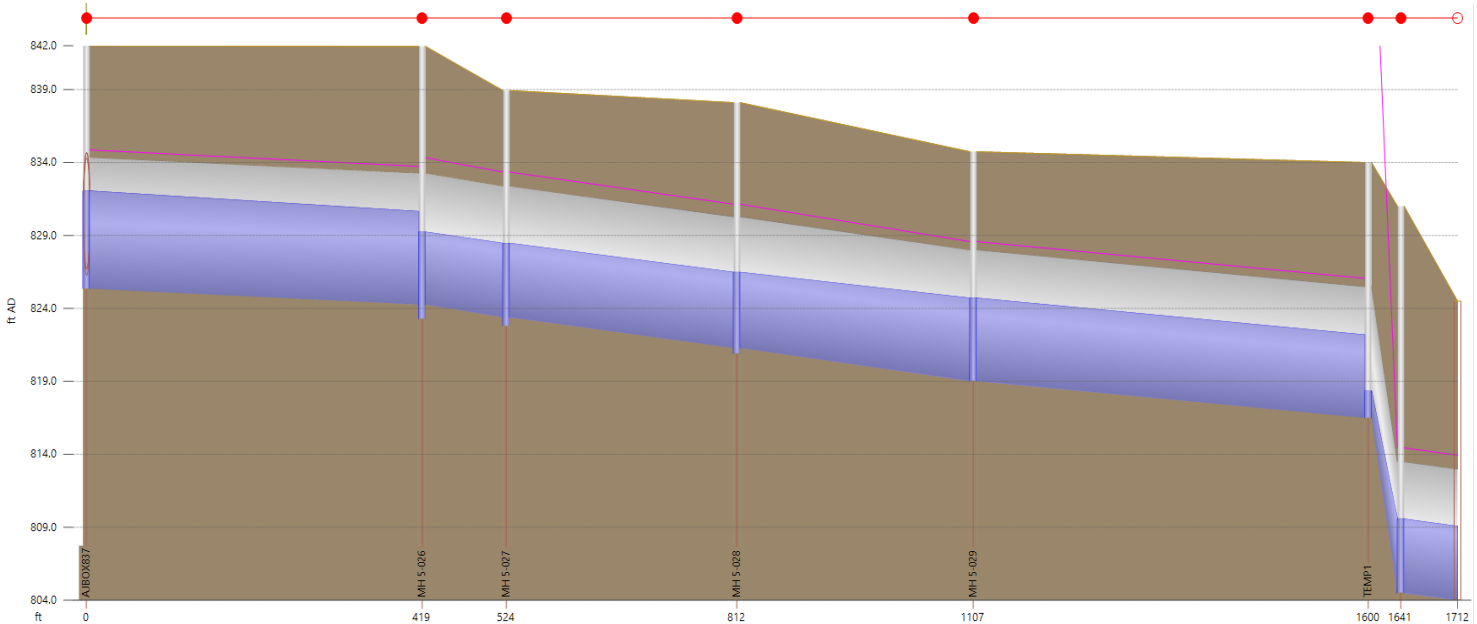
ARMOURDALE LEVEE UNIT	
PROJECT FEATURES	IMPROVEMENTS
Constructed: 1951	Improved performance reliability
Total Miles: 6.58 mi.	Four feet of levee and floodwall raise
Embankment: 5.30 mi	Installation of ~75 relief wells
Floodwall: 1.28 mi	Stability improvement measures
Closure Structures: 5	Modifying or replacing closure structures
Population at Risk: 6,700	Modifying seven pump stations
Structures at Risk: 1,468	Abandoning two pump stations
Property Value: $3.06B	Utility Relocations
Leveed Area: 3.08 sq. mi.	Modifying drainage structures

CENTRAL INDUSTRIAL DISTRICT LEVEE UNIT	
PROJECT FEATURES	IMPROVEMENTS
Constructed: 1950	Improved performance reliability
Total Miles: 4.83 mi.	Four feet of levee and floodwall raise. Adding 600 feet of floodwall
Embankment: 1.84 mi	Installation of ~75 relief wells
Floodwall: 2.99 mi	Stability improvement measures
Closure Structures: 11	Modifying or replacing closure structures
Population at Risk: 7,494	Modifying five pump stations
Structures at Risk: 526	Abandoning two pump stations
Property Value: $3.36B	Utility Relocations
Leveed Area: 1.48 sq. mi.	Modifying drainage structures

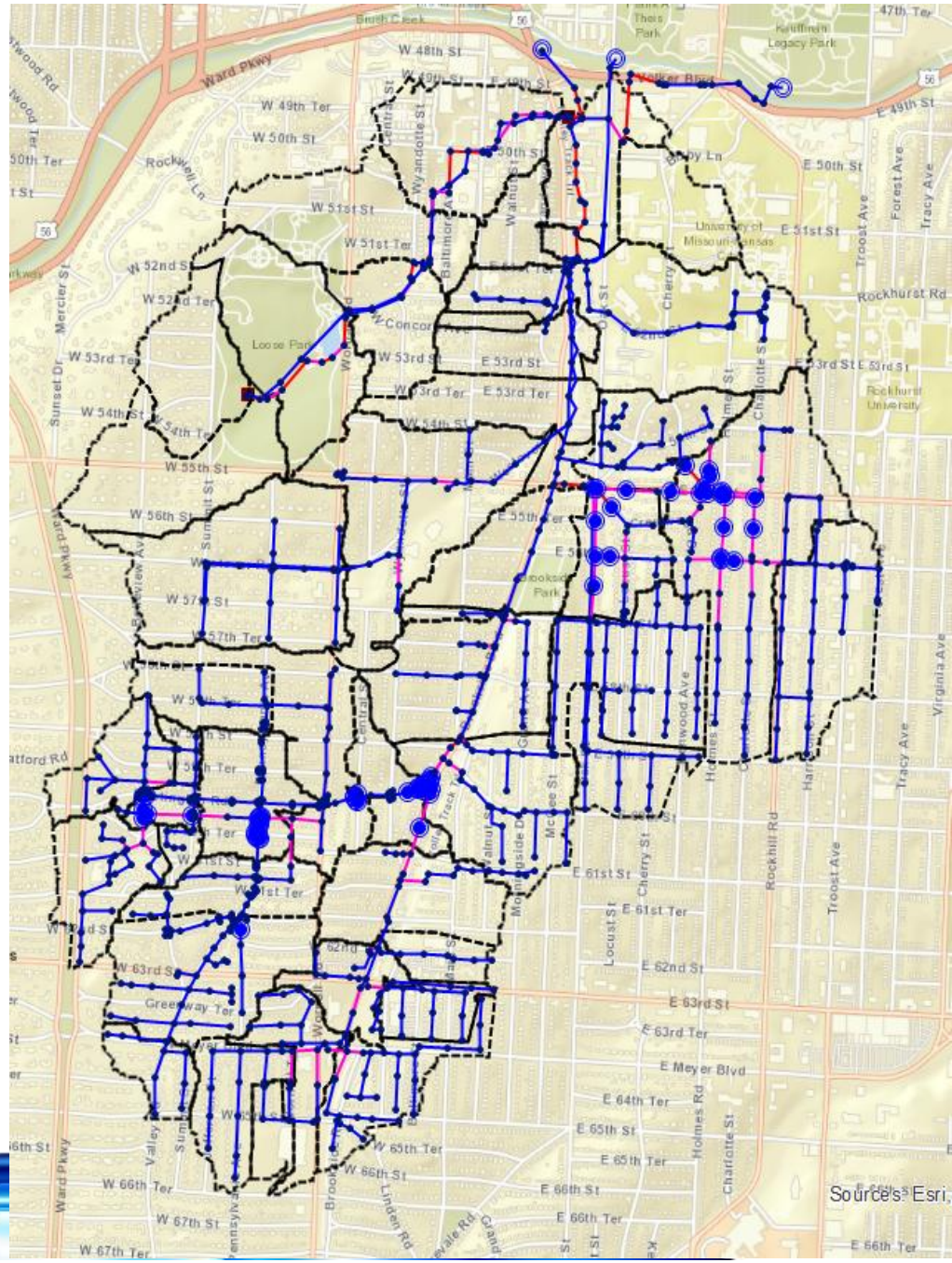
Brookside Stormwater Improvements

Full hydraulic evaluation to maximize system improvements

Integrate with South Streetcar Extension



Link		AJBOX837.2		MH 5-026.1	MH 5-027.1	MH 5-028.1	MH 5-029.1	-	TEMP2.1
width (in)		168.0		168.0	168.0	168.0	168.0	168.0	168.0
height (in)		108.0		108.0	108.0	108.0	108.0	108.0	108.0
US flow (MGD)		813.8765		813.2391	813.1052	812.7406	812.4663	-	812.2163
Node	AJBOX837		MH 5-026	MH 5-027	MH 5-028	MH 5-029	TEMP1	-	-



Brookside Stormwater Improvements

- Primary Goal: reduce flooding
- Balance cost and stormwater performance
- Improve water quality of our local waters
- Utilize Green Stormwater Infrastructure

Initial Interceptor Construction planned from Brush Creek to 56th Terrace